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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,424	06/16/1999	YASUTOMO NISHINA	450100-4916	5326

20999      7590      03/29/2004  
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EXAMINER

SALCE, JASON P

ART UNIT      PAPER NUMBER

2611

DATE MAILED: 03/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No. 09/334,424	Applicant(s) NISHINA ET AL.
Examiner Jason P Salce	Art Unit 2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on \_\_\_\_\_.
- 2a)  This action is FINAL.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-28 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 16 June 1999 is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \*    c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_.

**DETAILED ACTION**

***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "S11-S14" in Figure 6 have been used to designate "S11-S14" in Figure 11. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Settle et al. (U.S. Patent No. 6,233,253) in view of Matsuzaki et al. (U.S. Patent No. 6,522,672).

Referring to claim 21, Settle discloses a broadcasting system (see element 10 in Figure 2) having an information transmitting apparatus (see "encoder system and transmission system" in Figure 2) which transmits program information (see Column 9, Lines 14-55 for also transmitting program information) after multiplexing it (see element 20 in Figure 2) with a video signal and an audio signal (see element 12 or 14 in Figure 2) and an information receiving apparatus (see element 30 in Figure 3), which receives the program information that is multiplexed with the video signal and the audio signal (see element 32 in Figure 3 receiving the multiplexed information from element 10 in

Art Unit: 2611

Figure 2) and displays the program information together with the video signal (see Column 9, Lines 14-32).

Settle also discloses video encoding means for encoding the video signal (see elements 12 and 14 in Figure 2).

Settle also discloses audio encoding means for encoding the audio signal (see again elements 12 and 14 in Figure 2).

Settle also discloses program information data generating means for generating data of the program information (see Column 9, Lines 14-55 for generating subtitling information and inserting this into the data stream sent from the transmitter).

Settle also discloses multiplexing means for multiplexing the data of the program information that is output from the program information data generating means with video data that is output from the video encoding means and audio data that is output from the audio encoding means (see element 20 in Figure 2).

Settle also discloses a control means for controlling a data output rate of the video encoding means, a data output rate of the audio encoding means, and a multiplexing ratio among the video and audio data in the multiplexing means (see Column 11, Lines 18-35). The examiner notes that a multiplexing ratio dictates the output rate of the video, audio and program information that is to be sent to the receiver. Also see Column 10, Lines 50-66.

Settle also discloses information receiving apparatus comprising:

separating the program information that is multiplexed with the video and audio signal (see element 36 in Figure 3).

Art Unit: 2611

storing means for storing the program information separated (see buffers 40a and 40b in Figure 3 and Column 5, Lines 20-35).

and a control means for controlling operations of the separating means and the storing means in accordance with a transmission rate of the program information (see Column 5, Lines 30-47 for the receiver containing a rate buffering system, which controls the rate at which data is separate and stored).

Settle also discloses encoding audio, video and program information (disclosed at Column 9, Lines 14-35, but only discloses setting a multiplexing ratio for the audio and video, and fails to disclose setting a multiplexing ratio for the additional program information. Matsuzaki discloses an analogous system to Settle, which encodes audio, video and program information (see Column 5, Lines 14-23 for examples), but unlike Settle disclosing assigning priority information to the multiplexer based on which data is to be transmitted based on the priority values (see Column 4, Lines 59-67 and Column 5, Lines 1-3 and Lines 38-45). The examiner notes that controlling the multiplexer based on priority information is equivalent to assigning a multiplexer a multiplexing ratio, because both processes provide the multiplexer with an assignment of which information has higher importance of receipt by a receiver.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the configurable multiplexer (which adjusts the ratio of audio and video), as taught by Settle, using the configurable multiplexer (which adjusts the ratio (priority) of the audio, video and program information), as taught by Matsuzaki,

Art Unit: 2611

for the purpose of providing sufficient resistance to an error of transmission line and also has a function of graceful degradation (see Column 2, Lines 30-31).

3. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Settle et al. (U.S. Patent No. 6,233,253).

Referring to claim 16, Settle discloses the control and storing means, but fails to disclose further acquiring program information only when a prescribed period when the transmission rate of the program information is high. The examiner notes that it is well known to only buffer program information when a transmission rate is high. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the decoder of Settle, using the buffer for receiving data when a transmission rate is high, for the purpose of temporarily storing data so that it can be processed in an orderly fashion.

Referring to claims 18 and 20, see rejection of claim 16.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 15, 17-19 and 22-28 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Settle et al. (U.S. Patent No. 6,233,253).

Art Unit: 2611

Referring to claim 15, Settle discloses separating the program information that is multiplexed with the video and audio signal (see element 36 in Figure 3).

Settle also discloses storing means for storing the program information separated (see buffers 40a and 40b in Figure 3 and Column 5, Lines 20-35).

Settle also discloses a control means for controlling operations of the separating means and the storing means in accordance with a transmission rate of the program information (see Column 5, Lines 30-47 for the receiver containing a rate buffering system, which controls the rate at which data is separate and stored).

Referring to claim 17, see rejection of claim 15.

Referring to claim 19, see rejection of claim 15.

Referring to claim 28, Settle discloses a broadcasting system (see element 10 in Figure 2) having an information transmitting apparatus (see "encoder system and transmission system" in Figure 2) which transmits program information (see Column 9, Lines 14-55 for also transmitting program information) after multiplexing it (see element 20 in Figure 2) with a video signal and an audio signal (see element 12 or 14 in Figure 2) and an information receiving apparatus (see element 30 in Figure 3), which receives the program information that is multiplexed with the video signal and the audio signal (see element 32 in Figure 3 receiving the multiplexed information from element 10 in Figure 2) and displays the program information together with the video signal (see Column 9, Lines 14-32).

Settle also discloses generating program information data (see Column 9, Lines 14-32 for adding various types of program information (e.g. closed captions)) including

Art Unit: 2611

information of a transmission status of the program information (see Column 9, Lines 37-51 for packetizing the information along with transmission status (timing and conditional access information and service specific data related to the MPEG video services) of the program information).

Settle also discloses multiplexing the program information, audio and video encoded data (see element 20 in Figure 2 and Column 9, Lines 52-55).

Settle also discloses a receiving apparatus comprising:

separating the program information data that is multiplexed with the video and audio signal (see element 36 in Figure 3).

extracting information of transmission status of the program information that is included in the program information data separated (see Column 5, Lines 20-35 for decoding the transmission status of the program information).

Referring to claims 22-27, see rejection of claim 28.

5. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Matsuzaki et al. (U.S. Patent No. 6,522,672).

Referring to claim 1, Matsuzaki discloses an information transmitting apparatus which transmits a plurality of signals after multiplexing (see element 36 in Figure 1).

Matsuzaki also discloses multiplexing means for multiplexing the plurality of signals (see again element 36 in Figure 1).

Matsuzaki also discloses a control means for controlling a multiplexing ratio among the plurality of signals in the multiplexing means (see Column 5, Lines 38-45).



Art Unit: 2611

Referring to claim 2, Matsuzaki discloses that the transmitting apparatus transmits the plurality of signals as a single transport stream (see Column 8, Lines 40-44 for transmitting a single transport stream).

Referring to claim 3, Matsuzaki discloses a database means for providing data that relates to transmission rates of the plurality of signals at each time point (see Figure 4 for a priority correlation table for indicating priorities for multiple types of media and Column 7, Lines 20-22 and Column 5, Lines 46-53 for adding time information so that a "time point" can therefore be determined), wherein the control means controls the multiplexing ratio while referring to the database (see Column 8, Lines 1-7).

Referring to claim 4, Matsuzaki discloses an encoding means for one of the plurality of signals (see element 31 in Figure 1), wherein the control means controls an output rate of the encoding means (see again Column 8, Lines 1-7 and note that setting the multiplexer with a priority for either the video, audio or data will control the output rate of that particular piece of information).

Referring to claim 5, Matsuzaki discloses that the pluralities of signals are program information, video and audio signals (see Figure 2 for encoding video, audio and data and Column 5, Lines 14-30 for specific examples of such information).

Referring to claim 6, Matsuzaki discloses an information transmitting apparatus, which transmits a plurality of signals after multiplexing (see element 36 in Figure 1).

Matsuzaki also discloses a video and audio encoding means (see Figure 2).

Matsuzaki also discloses a program information data generating means (see element 35 in Figure 1).

Art Unit: 2611

Matsuzaki also discloses a multiplexing means for multiplexing the program information, video and audio (see element 36 in Figure 1).

Matsuzaki also discloses a control means for controlling a data output rate of the video, audio and program information by controlling a multiplexing ratio between these data elements (see Column 5, Lines 38-45).

Referring to claims 7-9, see rejection of claims 1, 3 and 5, respectively.

Referring to claim 10-13, see rejection of claims 6-9, respectively.

Referring to claim 14, see rejection of claim 6.

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P Salce whose telephone number is (703) 305-1824. The examiner can normally be reached on M-Th 8am-6pm (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 17<sup>th</sup>, 2004



**VIVEK SRIVASTAVA**  
**PRIMARY EXAMINER**